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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,441	06/23/2003	Victor Suen	02-6050	7640
24319	7590	05/16/2006	EXAMINER	
LSI LOGIC CORPORATION			CHANG, ERIC	
1621 BARBER LANE				
MS: D-106			ART UNIT	
MILPITAS, CA 95035			PAPER NUMBER	
			2116	

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/601,441	Applicant(s) SUEN ET AL.	
	Examiner Eric Chang	Art Unit 2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8-11-03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-23 are pending.

Specification

2. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

Appropriate correction is required.

Claim Objections

3. Claim 18 is objected to because of the following informalities: a period is required at the end of the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-2 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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6. The term "substantially inherent" in claims 1 and 18 is a relative term which renders the claim indefinite. The term "substantially inherent" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

7. The term "substantially aligned" in claim 2 is a relative term which renders the claim indefinite. The term "substantially aligned " is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-23 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent 6,333,875 to Shinozaki.

10. As to claim 1, Shinozaki discloses a system, comprising: a first delay circuit [35] configured for programmably delaying a strobe signal with a first delay to latch a data signal;

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and a second delay circuit [28] configured for delaying the data signal with a second delay that is substantially inherent to the first delay circuit [col. 1, lines 54-65].

11. As to claim 2, Shinozaki discloses a logic circuit [32] communicatively coupled between the first and the second delay circuits and configured for latching the data signal substantially aligned with the strobe signal [col. 1, lines 54-65].

12. As to claim 3, Shinozaki discloses the logic circuit comprises a flip/flop device [col. 1, lines 42-47].

13. As to claim 4, Shinozaki discloses a master delay circuit [36] configured for locking a clock signal and for programming the first delay circuit with the first delay therefrom [col. 4, lines 8-21].

14. As to claim 5, Shinozaki discloses the second delay comprises a duration that is less than a cycle duration of the clock signal [col. 6, lines 15-29].

15. As to claim 6, Shinozaki discloses a plurality of the first and the second delay circuits [28, 35, 71 and 73].

16. As to claim 7, Shinozaki discloses the first and the second delay circuits comprise substantially the same integrated circuitry such that the first delay circuit comprises a first

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overhead substantially having the second delay and the second delay circuit comprises a second overhead having the second delay [col. 6, lines 30-43].

17. As to claim 8, Shinozaki discloses a method of latching a data signal, comprising steps of: programmably delaying a strobe signal with a first delay [col. 4, lines 8-21]; delaying the data signal with a second delay that is inherently produced by the step of programmably delaying [col. 1, lines 37-41]; and registering the data signal responsive to the first delay using the strobe signal [col. 1, lines 42-47].

18. As to claim 9, Shinozaki discloses locking a clock signal to generate a control signal that programmably delays the strobe signal with the first delay [col. 4, lines 8-21].

19. As to claim 10, Shinozaki discloses the locking comprises a step of simultaneously transferring the control signal through a plurality of control lines to uniformly perform the step of programmably delaying [FIG. 3].

20. As to claim 11, Shinozaki discloses the step of delaying the data signal comprises a step of generating the second delay such that the duration of the second delay is less than a cycle duration of the clock signal [col. 6, lines 15-29].

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21. As to claim 12, Shinozaki discloses the step of registering the data signal comprises steps of: receiving the data signal; and latching the data signal with the strobe signal [col. 1, lines 42-47].

22. As to claim 13, Shinozaki discloses a system for latching a data signal, comprising: means for programmably delaying a strobe signal with a first delay [col. 4, lines 8-21]; means for delaying the data signal with a second delay that is inherently produced by the means for programmably delaying [col. 1, lines 37-41]; and means for registering the data signal responsive to the first delay using the strobe signal [col. 1, lines 42-47].

23. As to claim 14, Shinozaki discloses means for locking a clock signal to generate a control signal that programmably delays the strobe signal with the first delay [col. 4, lines 8-21].

24. As to claim 15, Shinozaki discloses the means for locking comprises means for simultaneously transferring the control signal through a plurality of control lines to uniformly perform the means for programmably delaying [FIG. 3].

25. As to claim 16, Shinozaki discloses the means for delaying the data signal comprises means for generating the second delay such that the duration of the second delay is less than a cycle duration of the clock signal [col. 6, lines 15-29].

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26. As to claim 17, Shinozaki discloses the means for registering the data signal comprises: means for receiving the data signal; and means for latching the data signal with the strobe signal [col. 1, lines 42-47].

27. As to claim 18, Shinozaki discloses a system, comprising: a first delay circuit configured for programmably delaying a first signal with a first delay to provide a delayed first signal [col. 4, lines 8-21]; and a second delay circuit configured for delaying the first signal with a second delay that is substantially inherent to the first delay circuit to latch the delayed first signal [col. 1, lines 37-41].

28. As to claim 19, Shinozaki discloses monitor logic [36] communicatively coupled between the first and the second delay circuits and configured for latching the delayed first signal in substantially alignment with the first signal [col. 4, lines 8-21].

29. As to claim 20, Shinozaki discloses the monitor logic is further adapted to provide timing for the system that corresponds with the first signal and to program the first delay circuit with the first delay therefrom [col. 4, lines 8-21].

As to claim 21, Shinozaki discloses the second delay comprises a duration that is less than a cycle duration of the first signal [col. 6, lines 15-29].

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30. As to claim 22, Shinozaki discloses a plurality of the first and the second delay circuits [28, 35, 71 and 73].

31. As to claim 23, Shinozaki discloses the first and the second delay circuits comprise substantially the same integrated circuitry such that the first delay circuit comprises a first overhead delay substantially having the second delay and the second delay circuit comprises a second overhead delay having the second delay [col. 6, lines 30-43].

Conclusion

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Chang whose telephone number is (571) 272-3671. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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April 14, 2006

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